



## ASX Announcement

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ASX: CUL

11 October 2023

### Barlee Exploration Update – Further Surface Sampling Assays

- Assays have been received for a set of reconnaissance surface sample (rock chips, soil and laterite - 17) from the Barlee project area, W.A.;
- Pegmatite and granite rock chips were collected from the Trainers Rocks Prospect (Fig.1); and,
- Samples of laterite, soil and quartz veins were collected from near known gold-in-soil anomalies, in the north west portion of E57/1135 (ASX: CUL; 24-8-2022).
- **Rock chip samples 208094-208097** (Table 1, Fig.1) from the Trainers Rock prospect, returned strongly anomalous Li assay values of **160-340 ppm**. The highest Li value of 340ppm is associated with high **Rb, to 1305 ppm, Ni to 1510ppm, and Cs to 60.6 ppm**.
- Air core drilling is proposed to test soil anomalies to the west of the granite outcrop at Trainers Rock (Fig.2).

**Table 1:** Assay results (all ppm) for surface samples from August reconnaissance program.

SAMPLE	Au	Ag	As	Be	Co	Cs	Cu	Li	Mo	Nb	Ni	Pb	Rb	Sn	Ta	W	Zn	
208090	0.001	<5	4	3.7	1.2	13.1	<20	17	<2	28.3	10	58	828	<3	3.71	0.4	10	Granite
208091	<0.001	5	<4	3.2	0.7	11.9	<20	13	<2	2.6	<10	16.5	589	<3	0.26	0.3	<10	Quartz Pegmatite
208092	<0.001	<5	<4	1.5	<0.5	9.9	<20	8	<2	13.8	<10	52.1	773	3	2.41	0.4	10	Granite
208093	0.001	<5	<4	6.3	0.8	9.4	<20	8	<2	22.1	10	23.5	741	<3	41.1	0.4	10	Granite/Pegmatite
208094	<0.001	<5	<4	5.8	1.7	9.3	<20	161	<2	61.3	10	20.9	813	14	8.16	1.5	60	Granite
208095	<0.001	<5	4	4	1.2	3.1	<20	160	<2	85.8	10	18.2	441	22	7.15	2.2	30	Pegmatite
208096	<0.001	<5	<4	8	74.4	60.6	<20	340	<2	6.2	1510	2.3	1305	4	0.56	<0.3	150	Amphibolite
208097	<0.001	<5	<4	7.7	1	6.3	<20	107	<2	43.1	10	17.6	516	7	7.99	0.9	40	Granite
208098	<0.001	<5	6	0.7	1.4	0.7	<20	21	13	37	10	45.7	22.2	4	7.28	3.5	10	Quartz
208099	<0.001	<5	<4	3	0.5	9.6	<20	9	<2	14.6	10	35.3	767	<3	3.32	0.3	10	Granite with Pegmatite
209401	0.002	<5	25	0.4	3	0.2	<20	5	6	5.7	30	27.7	4.4	<3	0.56	1.3	10	Laterite
209402	0.001	<5	10	<0.4	1.3	0.1	<20	4	7	82.7	10	16.4	2.2	7	6	9.3	10	Quartz
209403	0.001	<5	4	<0.4	<0.5	0.1	<20	3	<2	5.4	<10	1.8	2.4	<3	0.35	0.7	<10	Quartz
209404	0.001	<5	23	0.5	3.4	0.2	<20	7	6	42.4	20	22.7	2.8	4	2.91	5.3	10	Laterite
209405	0.001	<5	7	0.6	5	1.4	20	10	2	6.6	80	9.5	25.3	<3	0.52	1	20	Soil
209406	0.001	<5	4	8	60.2	0.5	90	70	<2	5.2	310	5.7	56.8	3	0.24	1.1	120	Granite
209407	0.001	<5	4	1.3	1.3	0.5	<20	11	<2	18.4	10	4.7	22.4	3	2.47	0.4	10	Pyroxenite

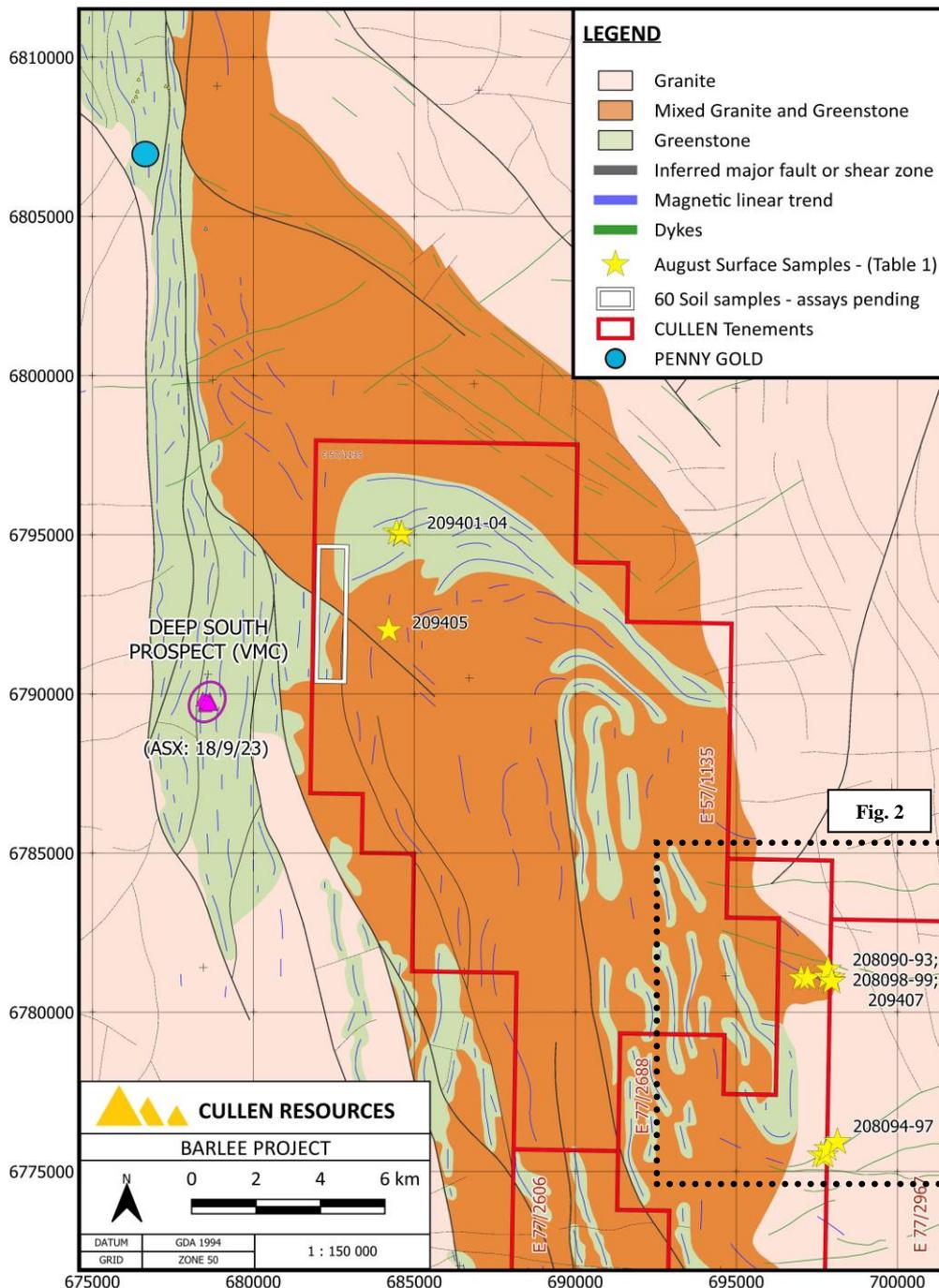
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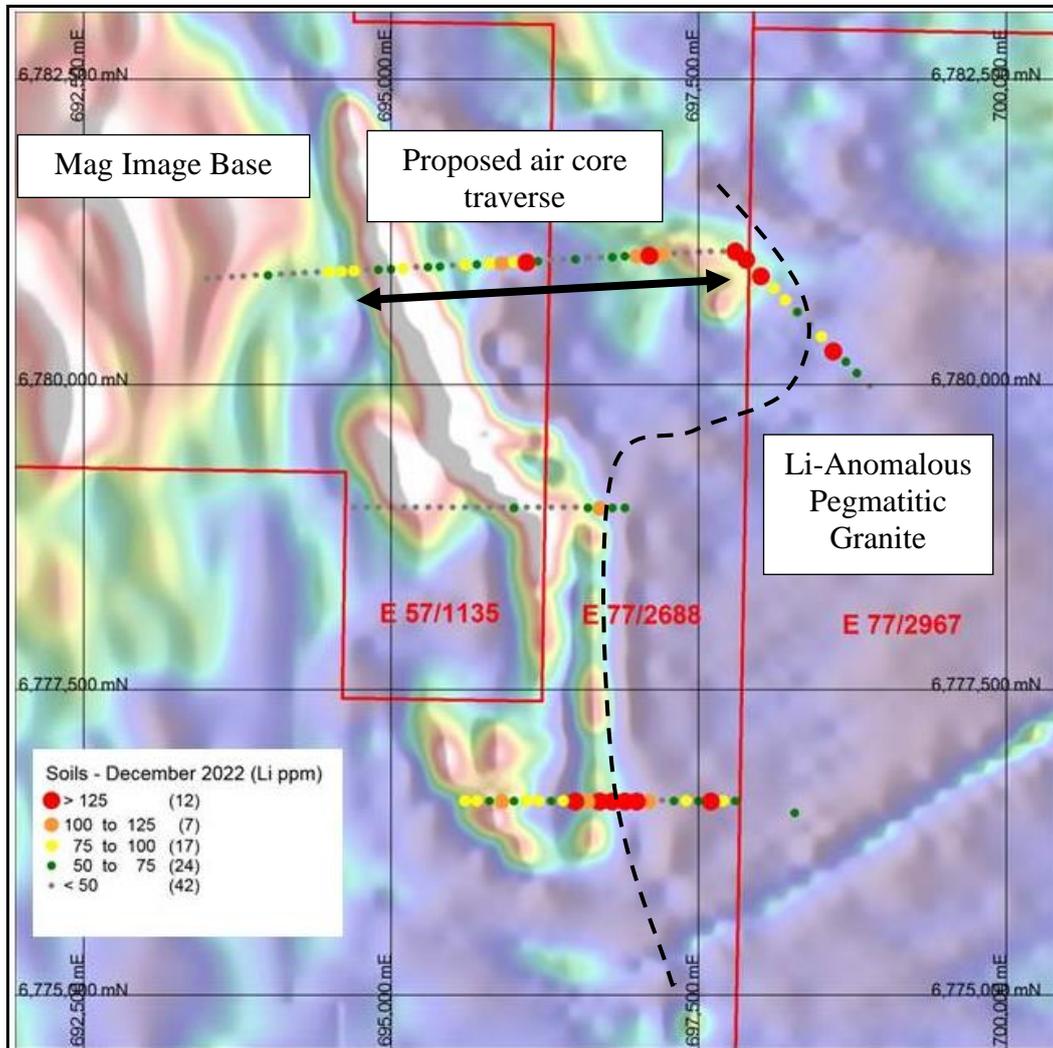
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Barlee is a “greenfield” project which extends from 10 - 55 km SSE of the Penny Gold deposit (previously “Penny West”) and the Youanmi greenstone belt, towards the NW tip of the Marda - Diemals greenstone belt. It covers significant strike of underexplored shear zones and numerous elongate and/or folded aeromagnetic anomalies (highs), which are greenstone (including mafics-ultramafics) intercalated within the granite terrane (ASX: CUL; 10-12-2021).

The most anomalous rare element values reported in Table 1 occur in granite, pegmatite, and a mafic rock. These anomalies indicate the Trainers Rock granite is a potentially fertile granite source for LCT-type pegmatites. The priority targets for first pass air core drilling are the soil anomalies to the west of the Trainers Rock granite outcrop which overlies greenstone in part (Fig.2).

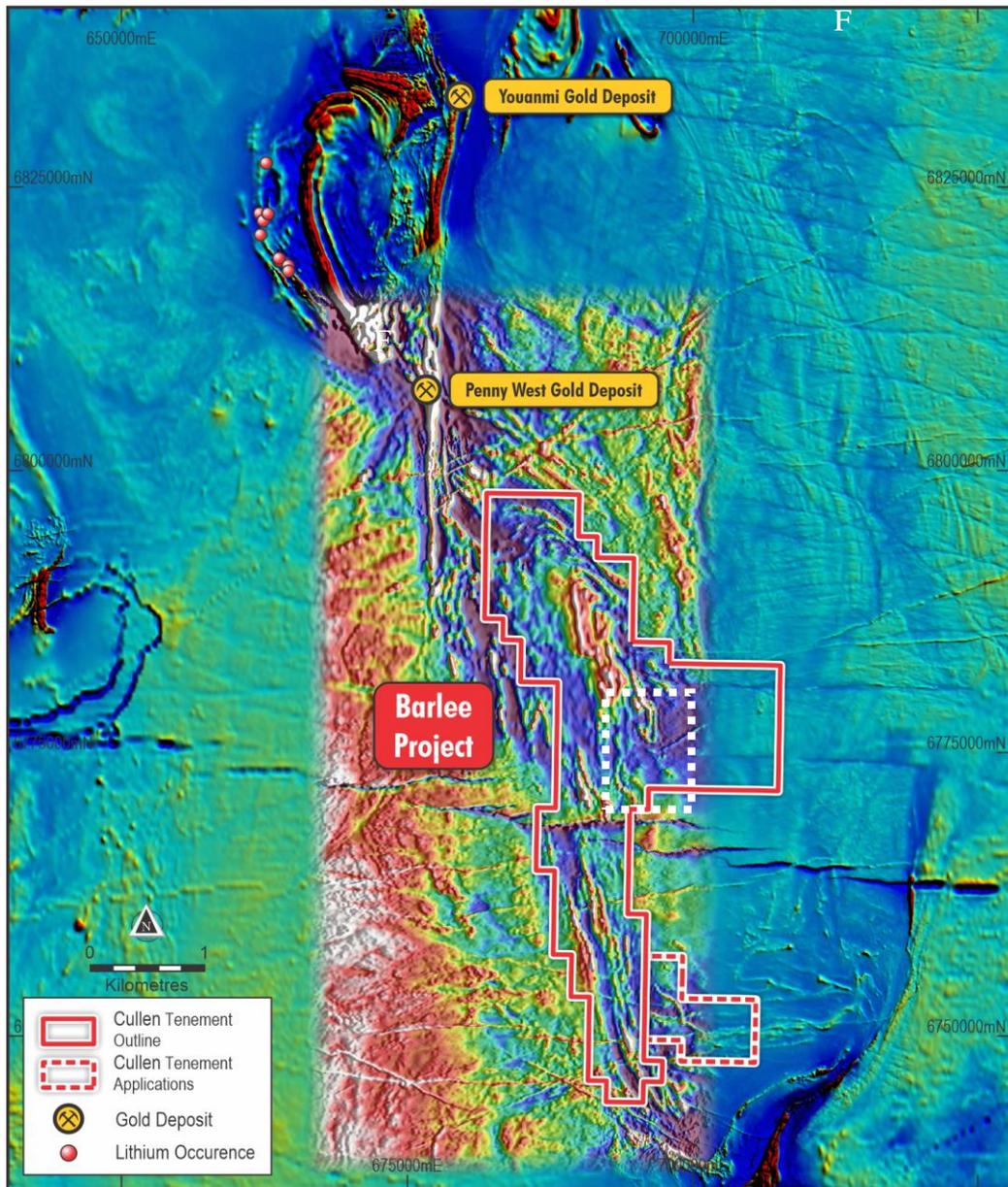


**Fig 1.** Location of surface samples, August reconnaissance program.



**Fig. 2.** Plot of Ultrafine soil, Li assays, at Trainers Rock prospect (ASX:3-2-2023)  
 - Traverse of air core drilling proposed to target greenstone on granite margin.

Sample ID	Easting	Northing	RL (m)	Tenement	Position	Lithology
208090	697011	6781068	427	E 77/2688	In-situ	Granite
208091	697213	6781074	437	E 77/2688	In-situ	Quartz Pegmatite
208092	697950	6781076	433	E 77/2967	In-situ	Granite
208093	697945	6780981	433	E 77/2967	In-situ	Granite/Pegmatite
208094	697627	6775505	415	E 77/2688	In-situ	Granite
208095	697744	6775506	415	E 77/2688	In-situ	Pegmatite
208096	697840	6775712	427	E 77/2967	In-situ	Amphibolite
208097	698139	6775927	424	E 77/2967	In-situ	Granite
208098	697808	6781110	442	E 77/2688	Float	Quartz
208099	697846	6781352	467	E 77/2688	In-situ	Granite with Pegmatite Vein
209401	684445	6795068	479	E 77/2688	In-situ	Laterite
209402	684600	6795003	480	E 57/1135	In-situ	Quartz
209403	684597	6795003	487	E 57/1135	In-situ	Quartz
209404	684610	6795018	483	E 57/1135	In-situ	Laterite
209405	684204	6792000	468	E 57/1135	In-situ	Soil
209406	693487	6766584	429	E 77/2782	In-situ	Granite
209407	697963	6780965	437	E 77/2967	In-situ	Pyroxenite



**Fig. 3.** Magnetics image\* illustrates Barlee Project setting: inset – location of recent sampling of pegmatites near Trainers Rocks.

\*Publically available aeromagnetic data: compiled, processed and interpreted by Southern Geoscience Consultants (SGC) - in Fig.1

### **Further Information – Cullen 2022 ASX Releases**

- 1. 28-1-2022: Quarterly Report, December 2021**
- 2. 09-2-2022: Air core drill results, E20/714, Cue**
- 3. 16-2-2022: Positive Ni-Co from drilling at Wongan Hills**
- 4. 01-3-2022: Exploration Update - Finland**
- 5. 14-3-2022: Ground EM to commence this week at Wongan Hills**
- 6. 31-3-2022: New ground EM conductors at Wongan Hills**
- 7. 06-4-2022: RC drilling to test EM conductors, Wongan Hills**
- 8. 27-4-2022: Outstanding gold grades at Mt Fisher- Mt Eureka project**
- 9. 28-4-2022: Quarterly Activities Report**
- 10. 18-5-2022: Exploration Update – Finland**
- 11. 03-6-2022: Exploration Update**
- 12. 08-7-2022: Exploration Update**
- 13. 22-8-2022: Encouraging Air Core Drilling Results**
- 14. 24-8-2022: Pegmatite Rock Chip Assays – Barlee Project**
- 15. 13-9-2022: New Lithium Reservation – Finland**
- 16. 30-9-2022 :Annual Report – Cullen Resources Limited**

### **Further Information – Cullen 2023 ASX Releases**

- 1. 18-1-2023: Soil sampling outlines new targets, Yornup, W.A.**
- 2. 23-1-2023: Soil sampling enhances lithium prospectivity, Bromus South.**
- 3. 31-1-2023: Quarterly Report for the period ending 31 December 2022**
- 4. 3-2-2023: Soil and rock assays highlight lithium prospectivity, Barlee.**
- 5. 13-3-2023: Exploration Update – North Tuckabianna**
- 6. 30-3-2023: Exploration Update – Wongan Hills**
- 7. 17-4-2023: Quarterly Report for the period ending 31 March 2023**
- 8. 31-5-2023: Exploration Permit - Finland**
- 9. 21-6-2023: Exploration Update – Wongan Hills**
- 10. 26-6-2023: Investor Presentation**
- 11. 21-7-2023: Quarterly Report**
- 12. 28-8-2023: Heritage Clearance Received**
- 13. 31-8-2023: Investor Presentation - August**
- 14. 5-9-2023: Pegmatite Targeting – Wongan Hills**
- 15. 21-9-2023: Pegmatite Sampling – Three Key Targets**
- 16. 27-9-2023: Annual Report**

**Data description as required by the 2012 JORC Code - Section 1 and Section 2 of Table 1  
Rock Chip Sampling – Barlee Project, August 2023**

<b>Section 1 Sampling techniques and data</b>		
<b>Criteria</b>	<b>JORC Code explanation</b>	<b>Comments</b>
Sampling technique	Nature and quality of sampling (e.g., cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.	<p>Rock chip samples collected at outcrop as 4-8 fragments 1-2kg; mainly from small areas of outcrop, and not necessarily representative.</p> <p>Samples of laterite and soil (whole sample) ~250g. Laterite nodules 1-2cm; soil from 5-20cm depth.</p> <p>Samples collected by qualified geologist on site.</p>
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	The samples were located using handheld GPS units with an approximate accuracy of +/- 5 m.
	Aspects of the determination of mineralisation that are material to the Public report. In cases where ‘industry standard’ work has been done this would be relatively simple (e.g. ‘reverse circulation drilling was used to obtain 1m samples from which 3kg was pulverised to produce a 30g charge for fire assay’). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	<p>The samples were sent to Perth laboratory ALS for multi-element analysis.</p> <p>Pulverized and tested for 85% passing 75 µm. Au analysed by aqua regia; trace element suite by sodium peroxide fusion with ICP-MS finish.</p>
Drilling technique	Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method etc.).	Not applicable – no drilling completed.
Drill Sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed	Not applicable – no drilling completed.
	Measurements taken to maximise sample recovery and ensure representative nature of the samples.	Not applicable – no drilling completed.
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	Not applicable – no drilling completed.
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining and metallurgical studies.	Not applicable – no drilling completed.

	Whether logging is qualitative or quantitative in nature. Core (or costean, channel etc.) photography.	Not applicable – no drilling completed. Rock chip samples have been described qualitatively and photographed.
	The total length and percentage of the relevant intersections logged	Not applicable – no drilling completed
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Not applicable – no drilling completed
	If non-core, whether riffles, tube sampled, rotary split, etc. and whether sampled wet or dry.	Not applicable – no drilling completed
	For all sample types, quality and appropriateness of the sample preparation technique.	The rock chip samples are for reconnaissance purposes only – sample preparation standard and appropriate for this purpose (crush and pulverize).
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Not applicable
	Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.	Not applicable – rock chip samples and other surface samples are for reconnaissance purposes only, collected from outcrops. No field duplicates taken. Rock chip samples are composed of multiple chips but may not be representative given coarse grains in pegmatites.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Appropriate for the purpose.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	Assaying and laboratory procedures appropriate for sampling of a reconnaissance nature.
	For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	Not applicable
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Blanks, standards, and duplicates inserted by laboratory.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Not applicable – no drilling completed
	The use of twinned holes	Not applicable – no drilling completed

	Documentation of primary data, data entry procedures, data verification, data storage (physically and electronic) protocols.	Sample descriptions taken in the field and stored on files at office database.
	Discuss any adjustment to assay data.	No adjustment to assay data as reported by laboratory.
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resources estimation.	Not applicable – no drilling completed
	Specification of the grid system used.	All data were acquired using GDA94 zone 50 coordinate system
	Quality and adequacy of topographic control.	Not applicable – no drilling completed
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Rock chip samples collected as available following interpreted line of pegmatite-granite / greenstone contact.
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Reserve and Ore Reserve estimation procedure(s) and classifications applied.	Not applicable – reconnaissance stage sampling.
	Whether sample compositing has been applied.	No sample compositing applied.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Surface samples collected as available along strike of sub cropping granite-pegmatite, may not relate to orientation of any mineralization.
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	Not applicable – no drilling completed
Sample security	The measures taken to ensure sample security.	Samples secured by Cullen employees and transported by Cullen to Perth laboratory.
Audits or reviews	The results of and audits or reviews of sampling techniques and data.	No auditing or reviews of surface sampling.
<b>Section 2 Reporting of exploration results</b>		
Mineral tenements and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interest, historical sites, wilderness or national park and environmental settings.	Cullen holds E57/1135, E77/2967, E77/2606 and E77/2688, E77/2782, 100%. A heritage agreement is in place with the NTP.
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	The tenure is secure and in good standing at the time of writing.
Exploration done by other parties	Acknowledgement and appraisal of exploration by other parties.	There has been previous drilling by Cullen as reported, but very limited historical exploration and mainly for base metals and gold. No previous explorer’s pegmatite sampling is known to be reported.

Geology	Deposit type, geological settings and style of mineralisation.	Program of rock chip sampling targeting rare element pegmatites in granite-greenstone terrane, and gold mineralization in lodes.
Drill hole information	A summary of all information material for the understanding of the exploration results including a tabulation of the following information for all Material drill holes:	Not applicable – no drilling completed
	· <i>Easting and northing of the drill hole collar</i>	Not applicable – no drilling completed
	· <i>Elevation or RL (Reduced level-elevation above sea level in metres) and the drill hole collar</i>	
	· <i>Dip and azimuth of the hole</i>	Not applicable – no drilling completed
	· <i>Down hole length and interception depth</i>	
	· <i>Hole length</i>	
	If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	Not applicable – no drilling completed
Data aggregation methods	In reporting Exploration results, weighing averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually material and should be stated	Not applicable – no drilling completed
	Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	Not applicable – no drilling completed
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Not applicable
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.	Not applicable – no drilling completed
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	Not applicable – no drilling completed
	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. ‘down hole length, true width not known’)	Not applicable – no drilling completed

Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts would be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	Not applicable – no drilling completed
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	Not applicable– no drilling completed
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations, geophysical survey results, geochemical survey results, bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or containing substances.	This report describes rock chip sampling assay results in context with models targeting LCT-type pegmatites. Other meaningful data has been incorporated into this report, from Cullen’s data compilation as reported and referenced.
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	Further work is planned – to include follow-up air core as a first pass.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, providing this information is not commercially sensitive.	See included figures.

**ATTRIBUTION: Competent Person Statement**

The information in this report that relates to exploration activities is based on information compiled by Dr. Chris Ringrose, Managing Director, Cullen Resources Limited who is a Member of the Australasian Institute of Mining and Metallurgy. Dr. Ringrose is a full-time employee of Cullen Resources Limited. He has sufficient experience which is relevant to the style of mineralisation and types of deposits under consideration, and to the activity which has been undertaken, to qualify as a Competent Person as defined by the 2012 edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves”. Dr. Ringrose consents to the report being issued in the form and context in which it appears. Information in this report may also reflect past exploration results, and Cullen’s assessment of exploration completed by past explorers, which has not been updated to comply with the JORC 2012 Code. The Company confirms it is not aware of any new information or data which materially affects the information included in this announcement.

**ABOUT CULLEN:** Cullen is a Perth-based minerals explorer with a multi-commodity portfolio including projects managed through a number of JVs with key partners (Rox, Fortescue, Capella and Lachlan Star), and a number of projects in its own right. The Company’s strategy is to identify and build targets based on data compilation, field reconnaissance and early-stage exploration, and to pursue further testing of targets itself or farm-out opportunities to larger companies. Projects are sought for most commodities mainly in Australia but with selected consideration of overseas opportunities. Cullen has a **1.5% F.O.B. royalty** up to 15 Mt of iron ore production from the Wyloo project tenements, part of Fortescue’s Western Hub/Eliwana project, and will receive \$900,000 cash if and when a decision is made to commence mining on a commercial basis – from former tenure including E47/1649, 1650, ML 47/1488-1490, and ML 08/502. Cullen has a **1% F.O.B. royalty** on any iron ore production from the following former Mt Stuart Iron Ore Joint Venture (Baowu/MinRes/Posco/AMCI) tenements – E08/1135, E08/1330, E08/1341, E08/1292, ML08/481, and ML08/482 (and will receive \$1M cash upon any Final Investment Decision). The Catho Well Channel Iron Deposit (CID) has a published in situ Mineral Resources estimate of 161Mt @ 54.40% Fe (ML 08/481) as announced by Cullen to the ASX – 10 March 2015.

**FORWARD - LOOKING STATEMENTS**

This document may contain certain forward-looking statements which have not been based solely on historical facts but rather on Cullen's expectations about future events and on a number of assumptions which are subject to significant risks, uncertainties and contingencies many of which are outside the control of Cullen and its directors, officers and advisers. Forward-looking statements include, but are not necessarily limited to, statements concerning Cullen’s planned exploration program, strategies and objectives of management, anticipated dates and expected costs or outputs. When used in this document, words such as “could”, “plan”, “estimate” “expect”, “intend”, “may”, “potential”, “should” and similar expressions are forward-looking statements. Due care and attention have been taken in the preparation of this document and although Cullen believes that its expectations reflected in any forward-looking statements made in this document are reasonable, no assurance can be given that actual results will be consistent with these forward-looking statements. This document should not be relied upon as providing any recommendation or forecast by Cullen or its directors, officers or advisers. To the fullest extent permitted by law, no liability, however arising, will be accepted by Cullen or its directors, officers or advisers, as a result of any reliance upon any forward-looking statement contained in this document.

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**Authorised for release to the ASX by: Dr C Ringrose**